AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A storage device, comprising: ~~including~~

a trusted clock,

a memory,

a time-stamper,

an interface,

a controller, and

a digital signer,

wherein

the controller is configured ~~device being adapted in use~~ to cause ~~store to said memory~~ data, that has been received from an outside of said device via said interface, to be time-stamped by said time-stamper, with a time obtained from said trusted clock, and digitally signed with a digital signature by said digital signer, and

the controller is further configured to store the time-stamped and digitally signed data to said memory, without transmitting said time-stamped data back to the outside of said device.

2. (currently amended) A device as claimed in claim 1, wherein said memory comprises ~~either of the following~~ at least one selected from the group consisting of: a disc, and a tape drive.

3. (currently amended) A device as claimed in claim 1, wherein said memory is a long term storage medium.

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4. **(currently amended)** A device as claimed in claim 1, wherein said memory is a removable ~~from the storage device~~ storage medium.

5. **(currently amended)** A device as claimed in claim 1, wherein said device comprises a part of ~~any one of the following~~ one selected from the group consisting of: a disc drive, a tape drive, a disc array, a disc sub-system, a tape library, an optical jukebox, a disaggregated storage network, a storage area network, network attached storage.

6. **(currently amended)** A device as claimed in claim 1, wherein said trusted clock is provided by a replaceable card pluggable ~~adapted to be plugged~~ into said device.

7. **(currently amended)** A device as claimed in claim 1, wherein said trusted clock is an encapsulated hardwired component.

8. **(currently amended)** A device as claimed in claim 1, further comprising ~~wherein there is a controller, with associated~~ controller logic associated with said controller, said controller logic being protected by a trusted mechanism to prevent unauthorized ~~unauthorised and unnoticed~~ alteration of said controller logic.

9. **(currently amended)** A device as claimed in claim 1, wherein said ~~device has a~~ controller is further configured ~~adapted~~ to do at least one of the following:

(i) identify whether the data received via said interface ~~by said device~~ has a flag indicative as a command to time-stamp the flagged data,

(ii) identify whether command language used to control operation of said device has a marker indicative as a command to time-stamp selected data, and

(iii) check whether the time-stamper is set to a time-stamp mode to time-stamp received data, or ~~not, so set so as not to time-stamp data~~ not.

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10. **(currently amended)** A device as claimed in claim 1, further comprising a clock-correcting input adapted to input a trusted correction signal to said trusted clock to correct said clock.

11. **(canceled)**

12. **(currently amended)** A storage device <u>as claimed in claim 8, wherein said memory is</u> ~~including a trusted clock;~~ a long term memory ~~device; a time-stamper; a digital signing unit; and a controller, with associated controller logic: said device being adapted, in use, to store to said memory device data that has been time-stamped by said time-stamper with a time obtained from said trusted clock and digitally signed with a digital signature by said digital signing unit, and said controller logic being protected by a trusted mechanism to prevent, in use, unauthorised alteration of said controller logic.~~

13. **(currently amended)** A storage device<u>, comprising:</u> ~~including~~

trusted clock means for non-repudiably measuring time,

~~data storage means for storing data,~~

time-stamping means for stamping data with a non-repudiable time supplied by said trusted clock means,

digital signing means for signing data digitally<u>,</u>

~~such that said~~ data storage means <u>for locally storing</u> ~~stores~~ data that has been time-stamped by said time-stamping means and signed with a digital signature by said digital signing means, [[in use]] <u>and</u>

<u>controlling means for prohibiting transmission of said time-stamped data to components other than said digital signing means and said data storage means.</u>

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14. **(previously presented)**   A method of storing secure time-stamped data in a data storage device, a trusted clock being at the data storage device, comprising the steps of:

(i) time-stamping data by using the trusted clock at said data storage device;

(ii) creating a digital signature dependent upon content of said data and time-stamp; and

(iii) storing said data and the signature associated with said data in said data storage device on a recording medium of said data storage device.

15. **(currently amended)**   A method as claimed in claim 14, wherein said recording medium ~~where said data storage device~~ comprises a long-term data storage medium, and wherein time-stamped, signed data are stored on said long-term data storage medium.

16. **(currently amended)**   A method as claimed in claim 14, wherein

said data storage device comprises a controller [[is]] used to control ~~operations~~ steps (i) to (iii), ~~and wherein~~

said controller is controlled by control logic, and

said method further comprises protecting said control logic by a trusted mechanism ~~which ensures that said control logic has not been modified from what it should be~~ to prevent unauthorized alteration of said controller logic.

17. **(currently amended)**   A method as claimed in claim 14, further comprising ~~including~~ checking data received by said data storage device for a flag indicative of instructions to time-stamp all of or a selected part of said data, and said data, or the part of said data, is time stamped accordingly.

18. **(currently amended)**   A method as claimed in claim 14, further comprising ~~including~~ checking a command language of a controller in said data storage device, said

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controller being used to control steps (i) to (iii), for instructions to time-stamp all, or a selected part, or parts, of said data.

19. **(currently amended)** A method as claimed in claim 14, wherein

said device comprises ~~is controlled by~~ a controller which is used to control steps (i) to (iii) and which has a time-stamp setting ~~in which the time-stamper time-stamps said data~~ and a non time-stamping setting ~~in which the time-stamper does not time-stamp said data,~~ and

said method further comprises checking ~~in which a check is made as to~~ the setting of said controller prior to said operation (i) ~~time-stamping, or not, of received said data.~~

20. **(currently amended)** A method of storing secure time-stamped data in a data storage device, a trusted clock being at the data storage device, said method comprising the steps of:

transmitting data to said device over the Internet or other public network;

time-stamping said data by using the trusted clock at said data storage device;

creating a digital signature dependent upon content of said data and time-stamp; and

storing said data and the signature associated with said data on a recording medium of said data storage device, ~~as claimed in claim 14 comprising transmitting said data to said device over the Internet or other public network, and time-stamping and signing said data, and storing said time-stamped signed data, within said data storage device~~ without transmitting said ~~signed~~ time-stamped data back over the Internet or other public network.

21. **(currently amended)** A method as claimed in claim 14, wherein said data that is time-stamped is a digest of a larger data record.

22. **(canceled)**

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23. **(currently amended)** A network, comprising having a data storage device adapted to time-stamp and store data that [[it]] said data storage device receives from said network without transmitting time-stamped data across said network.

24. **(currently amended)** A Software, firmware or a computer readable medium comprising having a program recorded thereupon, said program when executed by which, in use, causes a processor of a data storage device running a program causes the processor to execute a process including:

i)   time-stamping data by using a trusted clock at said data storage device;

ii) creating a digital signature dependent upon content of said data and time-stamp; and

iii) storing said data and associated said signature on a recording medium of said data storage device without transmitting said time-stamped data outside said data storage device.

25. **(canceled)**

26. **(currently amended)** A method of storing time-stamped time-stamper data on a network, said method comprising:

transmitting [[the]] data from a data source connected to said network first, remote, network-attached device to a data storage device also connected to said network, the data storage device including a trusted clock, a memory, a time-stamper and a digital signer,

time-stamping and digitally signing the transmitted data at said data storage device using storing in said memory data that have been time-stamped by said time-stamper, the stored data including a time obtained from said trusted clock and digitally signed with a digital signature by said digital signer, and

storing the time-stamped and digitally signed data to said memory, without in the absence of transmitting time-stamped data back to said remote device for storage data source via said network.

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27. (new) A device as claimed in claim 8, wherein said controller logic is time-stamped.

28. (new) A method as claimed in claim 14, wherein

said data storage device comprises a controller used to control steps (i) to (iii),

said controller is controlled by control logic, and

said method further comprises time-stamping the controller logic prior to passing data through to the trusted clock.

29. (new) A method as claimed in claim 14, wherein

said data storage device comprises a controller used to control steps (i) to (iii),

said controller is controlled by control logic, and

said method further comprises checking a signature of the controller logic prior to step (i).